

Title (en)

Multicast routing in selfrouting multistage networks

Title (de)

Mehradress-Leitweglenkung in selbstweglenkendem mehrstufigem Netzwerk

Title (fr)

Acheminement à destinations multiples dans un réseau à plusieurs étages et acheminement autonome

Publication

EP 0687124 A3 19980211 (EN)

Application

EP 95303492 A 19950524

Priority

US 25408994 A 19940606

Abstract (en)

[origin: US5666360A] An apparatus and method is described for multicasting an inlet data cell, received as part of a multicast request, through a self-routing multistage routing network. Two algorithms are disclosed which use at most three passes to perform any arbitrary multicast. In the first pass, data is usually routed from the source to a set of consecutive outputs. These outputs are used as inputs in the second pass for routing to the destination cubes, and in some cases, a third pass can be used to route the remaining cubes. Since these cubes constitute a partition of the original multicast set, the multicast is completed when each of the cubes has been successfully routed. The routing algorithms guarantee that those cubes used in each pass through the network do not have internal blocking. The criterion to select a multicast routing algorithm for a particular application is to keep a appropriate balance between the control simplicity, the number of passes and the number of internal links used by the algorithm.

IPC 1-7

H04Q 11/04; **H04L 12/18**; **H04L 12/56**

IPC 8 full level

H04L 12/18 (2006.01); **H04L 12/56** (2006.01); **H04Q 3/00** (2006.01); **H04Q 3/52** (2006.01)

CPC (source: EP US)

H04L 12/1854 (2013.01 - EP US); **H04L 12/5601** (2013.01 - EP US); **H04L 49/106** (2013.01 - EP US); **H04L 49/1553** (2013.01 - EP US); **H04L 49/1561** (2013.01 - EP US); **H04L 49/203** (2013.01 - EP US); **H04L 49/256** (2013.01 - EP US); **H04L 49/309** (2013.01 - EP US); **H04L 12/1863** (2013.01 - EP US); **H04L 2012/5652** (2013.01 - EP US)

Citation (search report)

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